

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016115**Date Inspected:** 03-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tony Sherwood**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint E4/E5 – C1 and C2, outside the OBG section: ABF welding personnel Jeremy Dolman (# 5042) was performing Flux Cored Arc Welding (FCAW). QC Inspector Jim Cunningham was present.
- 2) At weld joint E4/E5 – F, outside the OBG section: ABF welding personnel Fred Kaddu (# 2188) was performing Shielded Metal Arc Welding (SMAW). QC Inspector Tony Sherwood was present.
- 3) At weld joint E5/E6 – C1 and C2, outside the OBG section: ABF personnel Bryce Howell and a helper are setting to start the removal of the backing strap.
- 4) At weld joint E4/E5 – E1 and E2, outside the OBG section: QC Inspector Tony Sherwood performed and accepted the visual and Magnetic Particle Testing (MT) of the back gouged welds.

At E4/E5 – C1 and C2, outside the OBG section this QA Inspector randomly observed ABF welding personnel Jeremy Dolman (# 5042) performing production welding using the FCAW process with the Bug-O track system in the overhead position. Prior to the start of welding this QA Inspector observed QC Inspector Jim Cunningham

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

verify the welding parameters as follows: 242 amperes and 24.1 volts at a travel speed of 188 mm per minute. This QA Inspector also observed the preheat of the base material was greater than the minimum specified on the Welding Procedure Specification (WPS). The welding observed appeared to comply with WPS; ABF-WPS-D15-3110-4.

At weld joint E4/E5 – F, outside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (# 2188) setting up to start welding the bottom section of the weld. This QA Inspector observed the weld area had been ground to facilitate welding and run off tabs had been attached. Please see photo below. The weld appeared to have been ground to sound metal. QC Inspector Tony Sherwood stated he had previously performed and accepted a visual and MT inspection of the weld area. Prior to welding this QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters: 125 amperes using a 3.2 mm diameter 7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1030-Rev-1.

At weld joint E5/E6 – C1 and C2, outside the OBG section this QA Inspector observed ABF personnel Bryce Howell and a helper are setting up the plasma arc track torch in preparation to remove the backing strap and back gouge these welds.

At weld joint E4/E5 – E1 and E2, outside the OBG section this QA Inspector randomly observed QC Inspector Tony Sherwood performed the visual and MT inspection of the back gouged welds. QC Inspector Tony Sherwood informed this QA Inspector both inspections were acceptable. This QA Inspector performed a random visual verification the areas appeared to comply with the contract requirements.

Summary of Conversations:

As noted above.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: Hager,Craig

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer